

REMARKS

I. Introduction

In response to the Office Action dated August 26, 2003, claim 31 has been cancelled, and claims 22 and 32 have been amended. Claims 21-27 and 32-35 are pending and being examined. Claims 28-30 have been withdrawn from consideration.

II. Claim Amendments

Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims. Claim 22 has been amended to incorporate the limitations of previous claim 31. Claim 32 has been amended to delete language redundant with the parent claim from which it depends. These amendments do not introduce new matter, and their entry is respectfully requested.

III. Restriction Requirement

Applicants appreciate the Examiner's rejoinder of Groups I and II, identified in the restriction requirement raised in the Office Action dated April 9, 2003. Applicants further acknowledge that the Examiner has made the restriction of Group III from Groups I & II final. Applicants will postpone cancellation of non-elected claims until identification of allowable claims and in view of potential subsequent rejoinder, should circumstances permit.

IV. Non-Art Rejections

On page (3) of the Office Action, claims 21-27 and 31-35 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejection is based on the recitation of "presence of" in parent claims 21 and 22.

Applicants refer to a brief telephone conversation between Examiner McIntosh and Applicants' undersigned attorney, held today, November 26, 2003. During this conversation, discussion centered on this rejection and alternative language that would address the Examiner's concern. It was agreed that a statement for the record clarifying the intended meaning may suffice.

to overcome the rejection. Accordingly, Applicants respectfully traverse this rejection for the following reasons.

The recitation of “in the presence of DNA” and “presence of the complex” in claims 21 and 22, respectively, refers to a presence sufficient to permit binding to the DNA, although the details presented in the examples of the specification make it clear that the order in which binding occurs can vary. Accordingly, the claim language is intended to be flexible regarding the nature of the contact between the enzyme/inhibitor complex and the DNA. This language is supported by the specification as originally filed, for example, at page 57, lines 2-3. To remove any potential uncertainty regarding the meaning of “presence”, Applicants state for the record that contacting the DCMTase with the synthetic inhibitor molecule so as to form an enzyme/synthetic inhibitor molecule complex in the presence of DNA means that the complex so formed is sufficiently in the presence of the DNA as to be capable of binding (or already bound to) the DNA. Those skilled in the art would understand that “presence” in this context would not mean merely in the same room, but rather close enough for chemical interaction to occur. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

V. Prior Art Rejections

On pages (3)-(4) of the Office Action, claims 22, 23, 25-27 were rejected under 35 U.S.C. §102(a) as being unpatentable over Szyf et al., U.S. Patent No. 5,578,716 (Szyf) in view of Bettelheim et al., “Introduction to Organic and Biochemistry, 4th edition, 1990, Harcourt, Inc.” (Bettelheim). Applicants respectfully traverse these rejections for the following reasons.

As noted by the Examiner at page 4 of the Office Action, Szyf fails to teach administration of a compound which will bind to an allosteric site. At page 5 of the Office Action, the Examiner cited Bettelheim as teaching the definition of allosterism. While it is true that one skilled in the art may have been able to appreciate the value and utility of an allosteric inhibitor to alter the process regulated by the enzyme, this appreciation does not render obvious the means or capacity to achieve allosteric inhibition of DCMTase.

Prior to Applicants' invention, those skilled in the art did not know that DCMTase is regulated via an allosteric site, nor did the skilled artisan know that such allosteric inhibition could be achieved using a synthetic inhibitor molecule that comprises a C-5 methylcytosine that recognizes an allosteric site on DCMTase. Because the prior art, taken alone or in combination, fails to teach or suggest each element of Applicants' claims, Applicants respectfully request the rejection based on the prior art be withdrawn.

VI. Conclusion

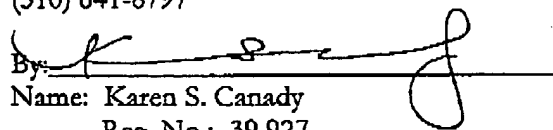
In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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